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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,887	02/09/2005	Masakazu Suzuki	125A 3645 PCT	8565

7590
Koda & Androlia
2029 Century Park East
Suite 1140
Los Angeles, CA 90067-2983

01/22/2007

EXAMINER

KAO, CHIH CHENG G

ART UNIT	PAPER NUMBER
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2882

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,887	SUZUKI ET AL.	
	Examiner	Art Unit	
	Chih-Cheng Glen Kao	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/14/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to because of the following inconsistencies with the specification. In the following format (location of objection; suggestion for correction), the following correction(s) may obviate the objection(s): (fig. 1, "headrest" at reference sign "54"; inserting --motor-- after "headrest" in the box), (fig. 9; replacing "54bg" with --54g--), (fig. 14, "headrest" at reference sign "54"; inserting --motor-- after "headrest" in the box), (fig. 15, "headrest" at reference sign "55"; inserting --motor-- after "headrest" in the box), and (fig. 15, "generaotr" at reference sign "1"; replacing "generaotr" with --generator--).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: (page 19, line 18, "LM(4)") and (page 19, line 19, "LM(12)").

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The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “72” has been used to designate both a tooth in figure 4 and a Y-axis motor in figures 14 and 15.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities. The specification refers to claims numerous times (i.e., on pages 5-12), which may create discrepancies and new

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matter issues if future claim amendments were to be made. Therefore, the examiner suggests removing all references to the claims that are in the specification.

Appropriate correction is required.

4. The abstract of the disclosure is objected to because it includes legal phraseology, such as “means” in lines 9, 11, and 12. Correction is required. See MPEP § 608.01(b).

5. The specification is objected to because of the following informalities, which appear to be minor draft errors including drawing inconsistencies and/or grammatical issues.

In the following format (location of objection; suggestion for correction), the following correction(s) may obviate the objection(s): (page 12, line 31; replacing “Fgi.3” with --Fig.3--), (page 16, line 20; replacing “wring” with --wiring--), (page 18, line 3, “console 12”; replacing “12” with --11--), (page 20, line 36; replacing “Fgi.3” with --Fig.3--), (page 21, line 31; replacing “liens” with --lines--), (page 22, line 8; replacing “Fgi.4” with --Fig.4--), (page 27, line 3; replacing “angel” with --angle--), (page 27, line 7; replacing “S!” with --S!--), (page 28, line 10; replacing “skilful” with --skillful--), (page 31, line 2, “processing means 9b”; replacing “9b” with --9a--), (page 33, line 29; replacing “oθn+1” with --θn+1--), (page 39, line 12; replacing “Fig.19” with --Fig.20--), (page 40, line 13, “line means 10”; replacing “10” with --13--), (page 40, line 35, “is liked with”; replacing “liked” with --linked--), and (page 41, line 14; replacing “Fig.20” with --Fig.19--).

Appropriate correction is required.

Claim Objections

6. Claims 1-22 are objected to because of the following informalities, which appear to be minor draft errors including grammatical and/or lack of antecedent basis problems.

In the following format (location of objection; suggestion for correction), the following correction(s) may obviate the objection(s): (claim 1, line 3, “wherein X-ray beam”; inserting --an-- after “wherein”), (claim 1, line 8; replacing “whereas” with --wherein--), (claim 1, line 13, “in a manner that”; inserting --such-- before “that”), (claim 1, last line, “the center”; replacing “the” with --a--), (claim 1, last line, “the orbit”; replacing “the” with --an--), (claim 2, line 2, “comprising, an X-ray generator”; deleting the comma), (claim 2, line 2, “image sensor and a circulating”; inserting a comma after “sensor”), (claim 2, line 5, “in a manner that”; inserting --such-- before “that”), (claim 2, line 7; replacing “whereas” with --wherein--), (claim 2, line 11, “moving said object holding means fixed”; deleting “fixed”), (claim 2, lines 11-12, “the rotary angle”; replacing “the” with --a--), (claim 2, line 12, “said X-ray circulating radiation”; deleting “said”), (claim 2, lines 12-13, “the center”; replacing “the” with --a--), (claim 2, line 13, “the orbit”; replacing “the” with --an--), (claim 3, line 18; replacing “comprising” with --comprises--), (claim 3, line 18, “the X-ray sectional image”; replacing “the” with --an--), (claim 3, line 19; replacing “process” with --processing--), (claim 3, line 19, “the X-ray transmitted image”; replacing “the” with --an--), (claim 3, last line; replacing “X-ray” with --X-rays--), (claim 4, line 4, “the regions”; deleting “the”), (claim 4, line 4, “the target sectional area”; replacing “the” with --a--), (claim 4, line 4; replacing “thorough” with --through--), (claim 4, line 5, “in a manner that”; inserting --such-- before “that”), (claim 4, line 9; replacing “excluded” with --excluding--), (claim 4, line 9, “a computed tomography”; deleting “a”), (claim 4, line 10, “a three-

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dimensional”; deleting “a”), (claim 6, lines 3-4, “in a manner that”; inserting --such-- before “that”), (claim 7, line 3, “said first X-ray sectional image”; replacing “said” with --a--), (claim 7, line 8, “in a manner that”; inserting --such-- before “that”), (claim 7, line 8, “said X-ray rotary”; replacing “said” with --the--), (claim 8, line 3, “and said object”; inserting --wherein-- after “and”), (claim 9, line 3; replacing “holds” with --holding--), (claim 9, line 6, “in a manner that”; inserting --such-- before “that”), (claim 9, line 7; replacing “its” with --said first X-ray--), (claim 11, line 3, “obtaining X-ray”; inserting --an-- after “obtaining”), (claim 11, line 3, “the local region”; replacing “the” with --a--), (claim 11, line 4; inserting --a-- before “conical”), (claim 13, line 3, “the imaging region”; replacing “the” with --an--), (claim 13, lines 3-4, “said interested area index”; replacing “said” with --an--), (claim 13, line 5, “said X-ray CT”; deleting “said”), (claim 15, line 2, “the start”; deleting “the”), (claim 15, line 2, “the termination”; deleting “the”), (claim 15, line 3, “such appropriate”; inserting --an-- after “such”), (claim 15, line 3, “or angle”; inserting --an-- after “or”), (claim 15, line 3, “angle as for”; deleting “as”), (claim 16, line 3, “the shape”; replacing “the” with --a--), (claim 16, line 3, “of X-ray beam”; inserting --an-- after “of”), (claim 16, line 4, “the shape”; replacing “the” with --a--), (claim 16, line 4, “of X-ray beam”; inserting --an-- after “of”), (claim 17, line 3, “obtaining dental”; inserting --a -- before “dental”), (claim 17, line 3, “or curved sectional”; inserting --a-- before “curved”), (claim 18, line 4, “image comprised”; replacing “image” with --images--), (claim 18, line 5, “the three”; deleting “the”), (claim 18, line 8, “the imaging region”; replacing “the” with --an--), (claim 22, line 3, “of said X-ray rotary axis”; replacing “said” with --the--), and (claim 22, line 3, “to said X-ray rotary axis”; replacing “said” with --the--).

Claims 3-22 are objected to by virtue of their dependency. For purposes of examination, the claims have been treated as such. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claim 1, the claim recites “while said X-ray generator and said X-ray image sensor moves for X-ray circulating radiation relative to each other with an object to be examined interposed therebetween so as to hold their mutual facing positional relation”. Claim 2 recites an analogous recitation. However, it is indefinite as to how a generator and sensor can move for X-ray circulating radiation relative to each other while holding their mutual facing positional relation. If the generator and sensor held their mutual facing positional relation, then the generator and sensor would not move for X-ray circulating radiation relative to each other. If the generator and sensor move for X-ray circulating radiation relative to each other, then they would not hold their mutual facing positional relation. Therefore, claims 1 and 2 are rejected for not particularly pointing out and distinctly claiming the subject matter which applicant regards as the invention. Claims 4 and 5 also recite relative movement, which is indefinite for the above reasons. Claims 3 and 6-22 are rejected by virtue of their dependency.

9. Regarding claim 14, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 2, 4-6, 10, 11, 14-17, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai et al. (US 6118842).

11. Regarding claim 1, Arai et al. discloses an X-ray computer tomography apparatus (abstract, lines 1-3) having an X-ray radiation means comprising an X-ray generator (fig. 2, #28) and a two-dimensional X-ray image sensor (fig. 2, #38), wherein an X-ray beam (fig. 2, from #28) is radiated on an object (fig. 2, object at #163) to be examined, while said X-ray generator and said X-ray image sensor moves for X-ray circulating radiation (fig. 2, via #22) relative to each other with an object to be examined (fig. 2, object at #163) interposed therebetween so as to hold their mutual facing positional relation (fig. 2), and wherein a first X-ray tomography is executed for obtaining a curved plane tomography image or a flat plane tomography image (abstract, "panoramic"), wherein a second X-ray tomography is executed for obtaining a

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computed tomography image of an interested area of said object (abstract, "CT"), said X-ray computer tomography apparatus comprising an object holding means (fig. 1, #12), and an object moving means (fig. 2, #10).

Note that recitations (i.e., wherein said first X-ray tomography is executed in a manner such that said object holding means is moved by said object moving means depending on a rotary angle of X-ray circulating radiation while holding said object by said object holding means during said X-ray circulating radiation, with a center of an orbit of said X-ray circulating radiation fixed) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

12. Regarding claim 2, note that recitations (i.e., for moving said object holding means depending on a rotary angle of X-ray circulating radiation during said X-ray circulating radiation, with a center of an orbit of said X-ray circulation radiation fixed, when executing said first X-ray tomography of said object) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

13. Regarding claim 4, note that recitations (i.e., wherein said first X-ray tomography is executed for obtaining an X-ray sectional image including a blurred image of regions other than

a target sectional area through a curved plane tomography or a flat plane tomography in a manner such that said X-ray generator and said two-dimensional X-ray image sensor are moved relative to each other with an object to be examined interposed therebetween so as to hold their mutual facing positional relation, and wherein said second X-ray tomography is executed for obtaining an X-ray sectional image excluding a blurred image through computed tomography which computes and processes three-dimensional X-ray absorption coefficient data) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

14. Regarding claim 5, Arai et al. further discloses wherein relative movement between said X-ray generator and said two-dimensional X-ray image sensor is a rotary movement (fig. 2, via #22) or a parallel movement.

15. Regarding claim 6, note that recitations (i.e., wherein said second X-ray tomography is executed for obtaining an X-ray computed tomography image around a local region of said object in a manner such that the interested area of said object conforms to the rotary center of X-ray circulating radiation by moving said object holding means or said X-ray radiation means after said first X-ray tomography is finished) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

16. Regarding claim 10, note that recitations (i.e., wherein said first X-ray tomography is executed for obtaining a flat plane sectional image by mutually moving said X-ray generator and said two-dimensional X-ray image sensor held by a rotary arm in a direction opposite to each other, while turning said rotary arm around said object with said interested area interposed therebetween) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

17. Regarding claim 11, Arai et al. further discloses a conical X-ray beam (col. 7, lines 18-21).

Also note that recitations (i.e., wherein said second X-ray tomography is executed for obtaining an X-ray computed tomography image of a local region of said object by radiating a conical X-ray beam from said X-ray generator) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

18. Regarding claim 14, Arai et al. further discloses wherein said two-dimensional X-ray imaging sensor is comprised of any one of CdTe, MOS, CCD, XICCD (col. 33, lines 35-43), or photo diode array.

19. Regarding claim 15, Arai et al. would necessarily have wherein start and termination angles of the X-ray circulating radiation are set in such an appropriate position or an angle for a patient to easily come in and out of said object holding means corresponding to said first and second X-ray tomography, respectively (fig. 1).

20. Regarding claim 16, Arai et al. further discloses wherein an X-ray beam switching means is provided for switching a shape of an X-ray beam radiated from said X-ray generator in the first X-ray tomography and a shape of an X-ray beam radiated from said X-ray generator in the second X-ray tomography (col. 4, lines 45-62).

21. Regarding claim 17, Arai et al. further discloses wherein said curved plane X-ray tomography is executed for obtaining a dental panoramic image (fig. 24) or a curved sectional X-ray image for use in otolaryngology.

22. Regarding claim 22, Arai et al. further discloses wherein said object holding means is moveable in an axial direction of an X-ray rotary axis as well as in a vertical direction to said X-ray rotary axis (fig. 2, #10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. as applied to claim 1 above, and further in view of Suzuki et al. (US 2001/0021244).

Arai et al. discloses an apparatus as recited above. Arai et al. further discloses an image processing means (fig. 9, #236) for producing an X-ray sectional image by executing processing to an X-ray transmitted image detected by said two-dimensional X-ray image sensor (fig. 9, #38) in said first X-ray tomography, which is transmitted through said object (fig. 2, object at #163) by radiating X-rays from said X-ray generator (fig. 2, #28).

However, Arai et al. fails to disclose executing Time Delay Integration (TDI) processing.

Suzuki et al. teaches executing TDI processing (paragraphs 26 and 95).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Arai et al. with the TDI processing of Suzuki et al., since one would have been motivated to make such a modification for improving usability of the apparatus (paragraph 95) as shown by Suzuki et al.

24. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. ('842) as applied to claim 1 above, and further in view of Arai et al. (WO 00/57789) and Fujimoto (US 5386446).

25. Regarding claim 8, Arai et al. ('842) discloses an apparatus as recited above.

However, Arai et al. ('842) fails to disclose wherein an object holding means has a chair for holding a patient in a sitting position and a head fixing means at the upper part of the chair, and wherein said object holding means further has a pulse motor for moving said object in an axial direction of an X-ray rotary axis or in a vertical direction to the X-ray rotary axis.

Arai et al. ('789) teaches wherein an object holding means has a chair (page 28, lines 4-10) for holding a patient (fig. 10, R) in a sitting position and a head fixing means (fig. 10, #4a and 4b) at the upper part of the chair, and wherein said object holding means further has a motor (fig. 10, #41) for moving said object in an axial direction of an X-ray rotary axis or in a vertical direction (fig. 10, #41c) to the X-ray rotary axis. Fujimoto et al. teaches a pulse motor (col. 5, lines 18-20).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Arai et al. ('842) with the chair of Arai et al. ('789), since one would have been motivated to make such a modification for making a patient feel more comfortable.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Arai et al. ('842) with the pulse motor of Fujimoto et al., since these motors are art-recognized equivalents for their use in translating objects, and the selection of any of these known equivalents to translate objects would have been within the level of ordinary skill in the art. One would have been motivated to make such a modification for better accuracy and control of movement.

See US 6493415 (col. 19, lines 54-63) for a translation of Arai et al. ('789).

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26. Regarding claim 9, Arai et al. ('842) further discloses wherein said X-ray radiation means has a rotary arm (fig. 2, #24) rotatable around the rotary center, said rotary arm holding said X-ray generator (fig. 2, #28) and said two-dimensional X-ray imaging sensor (fig. 2, #38) so as to keep their mutual facing positional relation.

Note that recitations (i.e., wherein said first X-ray tomography is executed for obtaining a curved plane sectional image in a manner such that said rotary arm turns around the object with the center of the orbit of the X-ray circulating radiation fixed during said first X-ray tomography, while said chair is moved along a predetermined imaging orbit in synchronism with the turning of said rotary arm) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art if the prior art teaches all the structural limitations of the claim. Therefore, these recitations have not been given patentable weight. See MPEP 2114.

Allowable Subject Matter

27. Claims 7, 12, 13, and 18-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter.

28. Regarding claim 7, prior art fails to disclose or fairly suggest an X-ray computer tomography apparatus, including a display means on which a first X-ray sectional image of an object taken by a first X-ray tomography is displayed, and an interested area selection means for

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selecting an interested area to be taken by a second X-ray tomography on said first X-ray sectional image displayed on said display means, and a calculation means of rotary center position for calculating movement data for relatively moving an object holding means or X-ray radiation means in a manner such that an X-ray rotary center conforms to said interested area selected by said interested area selection means, wherein said object holding means or said X-ray radiation means is moved depending on said movement data, and thereafter said X-ray radiation means is circulated with a center of an orbit of X-ray circulating radiation fixedly conformed to said interested area during X-ray circulating radiation, thereby executing said second X-ray tomography, in combination with all the limitations in the claim. Claims 12 and 13 contain allowable subject matter by virtue of their dependency.

29. Regarding claim 18, prior art fails to disclose or fairly suggest an X-ray computer tomography apparatus, including a sectional image link means for subdividing in advance a second X-ray sectional image obtained by a second X-ray tomography into an assembly of X-ray sectional images comprised of plural X-ray sectional images cut out at a fixed interval at least in one direction of three dimensional directions and for linking each X-ray sectional image in said assembly of X-ray sectional images as the second X-ray sectional image to a first X-ray sectional image obtained by a first X-ray tomography corresponding to an imaging region, an image recording means for storing together with each positional information said first X-ray sectional image and said second X-ray sectional image, each linked to the corresponding information, and a corresponding image calling means for invoking the linked corresponding X-ray sectional image when at least one of said first X-ray sectional image and said second X-ray sectional

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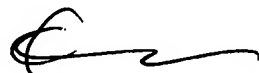
image stored in said image recording means is read out and is shown on said display means, in combination with all the limitations in the claim. Claims 19-21 contain allowable subject matter by virtue of their dependency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Chih-Cheng Glen Kao
Examiner
Art Unit 2882